

IN THE SPECIFICATION

**Please amend the Title on page 1 as follows:**

~~INFORMATION PROCESSING APPARATUS, INFORMATION PROCESSING  
METHOD AND COMPUTER PROGRAM~~

CONTROLLING DATA TRANSMISSION ON A DATA STORAGE NETWORK

BY SELECTING FROM MULTIPLE TRANSMISSION MODES

**Please amend the paragraph beginning at page 24, line 7, as follows:**

Fig. 8 is a flow chart illustrating a procedure including an autonomous process execution judgment process to be executed at a node that received a data record process request packet from a record instruction apparatus.

**Please amend the paragraph beginning at page 24, line 11, as follows:**

Fig. 9 is a flow chart illustrating a procedure including an autonomous process execution judgment process to be executed at a node that received a data record process request packet from a record instruction apparatus.

**Please amend the paragraph beginning at page 24, line 15, as follows:**

Fig. 10 is a diagram explaining an example of hash values to be generated by autonomous process execution judgment at a node that received a data record process request packet from a record instruction apparatus.

**Please amend the paragraph beginning at page 24, line 24, as follows:**

Fig. 13 is a diagram explaining a structure of a packet to be transmitted to the reproduction instruction apparatus from a node that received a data reproduction process request packet.

**Please amend the paragraph beginning at page 24, line 27, as follows:**

Fig. 14 is a diagram explaining a data FEC ~~encoding~~decoding process and a data ~~interleave~~deinterleave process to be executed by a reproduction instruction apparatus.

**Please amend the paragraph beginning at page 25, line 3, as follows:**

Fig. 16 is a diagram explaining a transmission process for a data storage packet to be transmitted from a node that received the data reproduction process request packet from a reproduction instruction apparatus.

**Please amend the paragraph beginning at page 25, line 7, as follows:**

Fig. 17 is a flow chart illustrating a procedure including an autonomous process execution judgment process to be executed at a node that received a data reproduction process request packet from a reproduction instruction apparatus.

**Please amend the paragraph beginning at page 25, line 11, as follows:**

Fig. 18 is a flow chart illustrating a procedure including an autonomous process execution judgment process to be executed at a node that received a data reproduction process request packet from a reproduction instruction apparatus.

**Please amend the paragraph beginning at page 34, line 14, as follows:**

As described above, the FEC encoding is a collective name of encoding methods for error correction on a reception side, such as a Tornado encoding method, a Reed Tornado encoding method and a Turbo encoding method. If data is encoded by the FEC encoding at the encoding rate of  $q/p$  and if  $p$  or more encoded blocks are left, the original message can be recovered even if some blocks are lost, as publicized in the paper ~~RIZZO~~<sup>97</sup> “Effective Erasure Codes for Reliable Computer Communication Protocols” (Luigi Rizzo, Computer Comm. Rev. (Apr. 1997), available at [info.iet.unipi.it/~luigi/fec.html#fec.ps](http://info.iet.unipi.it/~luigi/fec.html#fec.ps)) (<http://www.iet.unipi.it/~luigi/fec.html#fec.ps>).

**Please amend the paragraph beginning at page 36, line 1, as follows:**

Fig. 6 is a diagram showing the structure of a packet ~~[[40]]~~ to be generated by the packet generating unit 254. The packet is constituted of a header, a record rule judgment condition statement, a payload and a footer. The processed data (processed contents) subjected to the FEC encoding process and interleaving process are stored in the payload. Control information is described in the header and footer, the control information including a data ID indicating the type of data, a check sum of CRC (Cyclic Redundancy Check), a

GUID (Global Unique ID) as an inherent identifier of a packet transmission destination node, a network address and the like.

**Please amend the paragraph beginning at page 43, line 29, as follows:**

The data recovery processing unit 275 executes FEC error correction for the deinterleaved data shown in Fig. 14(b) to generate the recovered data shown in Fig. 14(c). As described earlier, the FEC encoding is a collective name of encoding methods for error correction on a reception side, such as a Tornado encoding method, a Reed Tornado encoding method and a Turbo encoding method. If data is encoded by the FEC encoding at the encoding rate of  $q/p$  and if  $p$  or more encoded blocks are left, the original message can be recovered even if some blocks are lost, as publicized in the paper RIZZ097 (<http://www.iet.unipi.it/~luigi/fec.html#fec.ps>) “Effective Erasure Codes for Reliable Computer Communication Protocols” (Luigi Rizzo, Computer Comm. Rev. (Apr. 1997), available at [info.iet.unipi.it/~luigi/fec.html#fec.ps](http://www.iet.unipi.it/~luigi/fec.html#fec.ps)).

**Please amend the paragraph beginning at page 83, line 28, as follows:**

At Step S712 the demand information provider apparatus provides the demand information as a response process to the inquiry source reproduction instruction apparatus. At Step S713 each reproduction instruction apparatus determines the data transmission mode in accordance with the demand information, generates the reproduction request packet set with the return probability as the reproduction rule judgment condition statement, and transmits the packet at Step [[714]] S714.

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Reply to Office Action dated September 13, 2007

**Please cancel the Abstract at page 103, lines 1-18 in its entirety and insert therefor the following replacement Abstract on a separate sheet as follows:**